



DEPARTMENT OF THE NAVY
NAVAL AIR SYSTEMS COMMAND
NAVAL AIR SYSTEMS COMMAND HEADQUARTERS
WASHINGTON, DC 20361-0001

IN REPLY REFER TO

NAVAIRINST 4160.2
AIR-41111
26 Jul 88

NAVAIR INSTRUCTION 4160.2

From: Commander, Naval Air Systems Command

Subj: NAVY TECHNICAL MANUAL PROGRAM

Ref: (a) SECNAVINST 5219.2A
(b) NAVMATINST 4000.15A
(c) OPNAVINST 4490.2C
(d) DOD FAR Supplement, parts 4 and 15
(e) DOD 5010.12-L of 1 Oct 87
(f) DODD 5000.43 of 15 Jan 86
(g) FAR, part 15
(h) OPNAVINST 5510.1G
(i) NAVMATINST 4160.1
(j) SECNAVINST 4120.3E

Encl: (1) Navy Technical Manual Management Policy Council Charter
(2) Navy Technical Manual Technical Council Charter

1. Purpose. This instruction summarizes the Navy Technical Manual Program; prescribes requirements for the management, acquisition, and maintenance of technical manuals within the Naval Material Establishment (NME); and identifies action necessary to implement the policies of reference (a).

2. Cancellation. This instruction cancels NAVMAT Instruction 4160.2 of 24 November 1980.

3. Scope. This instruction applies to the Department of the Navy (DON) commands and activities that acquire, manage, or maintain technical manuals in support of weapon systems and equipment. The provisions of this instruction do not apply to Naval Nuclear Propulsion Systems and weapons systems that are supported and controlled by the Joint Nuclear Weapons Publications Systems.

4. Background. Enclosure (1) to reference (a) directed all branches of the military service to centralize and streamline the management of technical manuals.

a. The Naval Material Command (NMC) was designated as the centralized manager for the Navy Technical Manual Program. In 1984, the Naval Inspector General reported problems with the Navy Technical Manual Program, and made recommendations for improvement. The Secretary of the Navy (SECNAV) established the Navy Technical Manual Management Policy Council (NTMMP) and

9722

26 Jul 88

(3) Tailoring. Navy specifications, standards, and requirements documents for the acquisition of technical manuals shall be tailored per reference (f) to ensure that only essential data is obtained with each acquisition. Specifications, standards, and requirements documents shall be consolidated, simplified, standardized, and maintained current. Tailoring shall consist only of the exclusion of those sections, paragraphs, or sentences in an approved specification or standard that are not required for a specific acquisition.

(4) Pricing and Costs. All new or revised technical manuals and technical manual changes shall be separately priced by the contractor in all hardware proposals for negotiation in all applicable contracts. Solicitation documents shall emphasize this requirement and shall indicate that backup cost and pricing data may be required prior to award. Cost and pricing data requirements shall be subject to the limitations stated in subpart 15.804 of references (d) and (g). The cost of engineering source data preparation shall not be charged to the technical manual line. For commercial manuals, total cost for the order quantity of each different technical manual shall be the only cost data required, except for costs to develop supplements to qualify the manual. Contracts written expressly for the acquisition of technical manuals on a price-per-page basis, shall include the requirement for page unit accountability for new, revised or changed technical manual pages.

(5) Commercial Manuals. Technical manuals shall not be prepared to "best commercial practices," nor shall the Government pay for the development of commercial manuals; however, commercial manuals shall be acquired whenever possible. They must: (a) be obtainable off the shelf; (b) describe the installation, operation, and maintenance of the commercial nondevelopmental item; and (c) be evaluated by the Navy for acceptability per MIL-M-7298D, preferably prior to contract award.

i. Development. Logistics Support Analysis Records (LSAR's) shall be used to the maximum extent possible in the development of technical manuals. Technical manual quality assurance actions which reveal inaccuracies in the LSAR, shall be provided to the appropriate office responsible for updating the LSAR.

j. Quality Assurance. Each new acquisition and modification contract shall include requirements for a technical manual quality assurance program per MIL-M-85337A. This quality assurance program shall be exercised over technical manuals to determine acceptability of deliverable data, their costs, and improvement initiatives to correct deficiencies. The quality assurance program should be tailored to the requirements of the acquisition. Conferences and reviews shall be conducted with the contractor, fleet and training personnel.

(1) Validation. All new or revised technical manuals, and changes to existing manuals, shall be procedurally validated and certified by the contractor. The contracting activity shall ensure validation was adequately performed and that discrepancies have been corrected prior to acceptance. Methods to accomplish this include witnessing validation and reviewing validation documentation. Only manuals which are technically accurate and adequate, and suitable for quality reproduction prior to distribution, shall be accepted.

the Navy Technical Manual Technical Council (NTMTC), under the leadership of the Chief of the Naval Material Command (CNM), to oversee the systems commands' (SYSCOM's) technical manual improvement efforts. Charters for the two councils are provided as enclosures (1) and (2), respectively.

b. On 6 May 1985, the NMC was disestablished. Reference (a) documents that the Naval Air Systems Command (NAVAIR) is assigned the lead SYSCOM for the Navy Technical Manual Program, and chairing the NTMTC. As lead SYSCOM, NAVAIR is the coordinator for standardized policies, procedures, guidance, and accountability among the SYSCOM's.

c. On 14 April 1987, NAVAIR approved and published the Navy Technical Manual Management Plan (NTMMP). The NTMMP describes the Navy technical manual effort and documents existing standardization and areas for improvement. The NTMMP served as a basis for this instruction.

5. Policy. Accurate, comprehensible, and usable technical manuals shall be acquired and delivered per reference (b) in a timely manner to the users of systems and equipment the Navy develops, acquires, and supports. Delivery of technical manuals should be coordinated with existing training schedules.

a. Overview. Technical manuals shall be: (1) a primary source of technical information; (2) designed and written to facilitate their use in operation, maintenance, repair, training, and logistics support of weapon systems or equipment; (3) made available at the same time as the first production system or equipment for initial training (see reference (c)); and (4) matched to the education, training, and comprehensibility levels of the intended user.

b. Centralized Management. A centralized technical manual program shall be established within each SYSCOM, per reference (a) and the requirements of the NTMMP, to ensure that technical manuals are under management control at all times and are acquired and maintained in a cost-effective manner.

(1) Centralized control shall be exercised over the management of technical manual planning, acquisition, generation, distribution, maintenance, and cataloging. A point of contact list shall be established and maintained by each activity that acquires, updates or manages Navy technical manuals.

(2) An automated centralized Technical Manual Management Information System (TMMIS) shall be established and maintained by each SYSCOM. The system shall identify, track, and distribute information required to manage and control technical manuals throughout their life cycle. This system shall be directly accessible by Navy users and shall support the fleet and support elements with management information. The TMMIS will have the ability to interface with other SYSCOM and Department of Defense (DoD) management information systems.

c. Interface With Other Disciplines. An interface and exchange of information shall be established with SYSCOM acquisition, engineering, configuration management, standardization, maintenance, training, and other logistics personnel.

26 Jul 88

(2) Direct, coordinate, and administer the Navy Technical Manual Program from a central program office.

(3) Chair and provide staff support to the NTMTC, as stated in enclosure (2).

(4) Serve as the Navy technical representative and principle point of contact to congressional and governmental agencies, the Office of the Secretary of Defense (OSD), other DoD services and field activities, SECNAV, Office of the Chief of Naval Operations (OPNAV), and private industry, for Navy Technical Manual Program matters.

(5) Publish coordinated instructions within the Navy, as appropriate, to implement the policies of higher authorities.

(6) Monitor the compliance with Navy policy of Navy activities that are responsible to acquire and maintain technical manuals.

(7) Establish and coordinate NME joint efforts, procedures, and agreements required to exchange technical manuals and related technical information, resolve joint service technical issues and establish an NME position as required.

(8) Establish a process for the periodic review of technical information requirements to determine whether they should be consolidated into the Navy Technical Manual Program.

(9) Chair meetings, identify and assign action items required to resolve all issues which touch on noncompliance with Navy Technical Manual Program policy.

(10) Administer and provide technical advice to the NTMMPC and CNO on technical manual research, development, and standardization efforts throughout the Navy.

(11) Develop and coordinate the implementation of a technical manual automation system within the Navy. Coordinate the Navy Technical Information Presentation System (NTIPS) requirements with NAVSUP to ensure compatibility with the Navy Standard Technical Information System (NSTIS) and CALS.

b. Commanders, Naval Systems Commands (principally NAVAIR; Naval Facilities Engineering Command; Naval Sea Systems Command; NAVSUP; and Space and Naval Warfare Systems Command) shall:

(1) Establish specific policy and procedures for the uniform application and execution of reference (a) per this instruction.

(2) Designate an organization for overall technical manual management and control. This organization shall establish, maintain and monitor a system that:

9782

1

26 Jul 88

(a) Provides control of technical manual acquisition requirements, including the criteria essential to approve or reject technical manuals offered by contractors and other preparing activities.

(b) Tracks the development, distribution and updating of technical manuals.

(c) Executes the Navy Technical Manual Program requirements for quality control of technical manuals, including the effectiveness of quality assurance provisions required of contractors and other preparing activities.

(d) Provides central control and oversight of the Navy Technical Manual Program requirements within the SYSCOM, including budgeting requirements.

(e) Manages resource requirements for the technical manual management which includes the definition of the requirements, priorities, and improvements.

(f) Executes funding plans to meet Navy Technical Manual Program requirements.

(g) Records, analyzes, and distributes acquisition and other life cycle cost data of technical manuals.

(3) Ensure that technical manuals are acquired to approved specifications, deviations and waivers cited in TMCR's.

(4) Review technical manual specifications and standards for currency and improvement in concert with standardization efforts, defined in ref (j).

(5) Provide management visibility to technical manuals as a function of ILS throughout the life cycle of the weapon, system, or equipment.

(6) Assign appropriate representatives to the NTMMPC, NTMTC and their subcommittees. Representatives must have authority to speak on the subject of technical manuals for their respective commands.

(7) Fund and coordinate with NPPS for the printing and initial distribution of Navy technical manuals and their updates.

(8) Coordinate with NAVPUBFORMCEN for the stocking of Navy technical manuals and their changes.

(9) Implement and monitor the policy and procedures delineated in paragraph 5 of this instruction.

c. Commander, NAVSUP shall:

(1) Provide direction, guidance and support to NAVPUBFORMCEN and NPPS to meet NTMTC and NTMMPC goals and objectives for the Navy Technical Manual Program.

26 Jul 88

(2) Verification. Verification consists of the actual performance of operating and maintenance procedures and associated checklists, including checkout, calibration, alignment, and scheduled removal and installation instructions. Verification is conducted by Navy personnel with skill levels equal to those of the intended users in the expected operational environment. If the acquiring office has a high level of confidence in the development of a technical manual, it may wish to delay verification until fleet users have used the manual for several months. During that time, fleet users can make a recommendation regarding the necessity of verification.

k. Cover and Title Page Requirements

(1) Markings. The following information shall appear on the cover and title page of all Navy technical manuals, changes, revisions and reprints:

(a) Bar code following Naval Supply Systems Command (NAVSUP) direction.

(b) Destruction statement, if applicable, per reference (h), exhibit 12B.

(c) Distribution Statement per reference (h), exhibit 12B.

(d) Security classification, if applicable, per reference (h), chapter 9.

(e) Technical manual number per reference (i).

(2) Composition. Technical manual covers shall be standardized per separate direction.

1. Acceptance. Criteria shall be developed for use in the contract acceptance or rejection of technical manuals and associated data items.

m. Deliverable Items. Technical manual masters (final reproducible copy) shall be acquired and delivered to the Government for all technical manuals, except for commercial manuals. The form of the master shall not constrain the Navy to a proprietary system. Contract provisions for electronic data will apply once the medium and format specifications and standards for data transcription have been developed and authorized by DON under the Computer-Aided Acquisition and Logistics Support (CALS) initiative.

n. Indexes. Indexes of applicable technical manuals shall be developed for each ship, weapon system, and equipment. The indexes shall be an integral part of the SYSCOM TMMIS. A centralized index of all Navy technical manuals that support DON or national security assistance programs, shall be maintained by the Naval Publications and Forms Center (NAVPUBFORMCEN).

o. Reproduction. SYSCOM's shall ensure all Navy technical manuals are reproduced in coordination with the Navy Publishing and Printing Service (NPPS).

7722

5

26 Jul 88

p. Distribution. SYSCOM's shall develop and maintain distribution lists in their TMMIS to facilitate and control the dissemination of technical manuals.

q. Stocking. Advance notice shall be given to NAVPUBFORMCEN by technical manual sponsors, via a Forms and Publications Status Report (FPSR), for all technical manuals (including changes and revisions) intended for stocking at NAVPUBFORMCEN. Initial stock levels shall be established by the acquiring activity based on an anticipated 2 year supply. Replenishment stock levels shall be based upon actual demand over a specified period, normally 2 years. Both initial and replenishment stock levels should consider allowances for the large quantities of technical manuals required by technical training activities. Unless a revision to a technical manual is expected to be printed within 3 months, a reprint shall be ordered when NAVPUBFORMCEN records indicate there is a need. The order quantity should be adjusted if a revision is expected to be printed within the normal supply period.

r. Requisitioning. Technical manuals shall be requisitioned per NAVSUP publications 437, 485, and 2002. Technical manual shipping discrepancies shall be reported to NAVPUBFORMCEN via a report of discrepancy (ROD).

s. Assistance to Users. Technical manual assistance shall be made available to the fleet and other support activities by the SYSCOM's.

t. New Technology. Studies shall be initiated to develop advances in new technology for paperless information systems and other methods for improving Navy technical manuals. All efforts shall be coordinated with the CALS offices.

u. Performance Indicators. The SYSCOM's shall provide information on the status of their technical manual programs by reporting on performance indicators established by the lead SYSCOM. The lead SYSCOM shall assess the Navy Technical Manual Program and provide feedback to the NTMPC and Chief of Naval Operations (CNO).

6. Responsibilities

a. CNO is responsible for planning and directing reference (a) policies and chairing the NTMPC.

b. NAVAIR is responsible for providing technical guidance and recommendations to the NTMPC, CNO and SECNAV on technical manual matters. In addition, NAVAIR is responsible for chairing the NTMTC and defining the goals of the Navy Technical Manual Program.

7. Action

a. Commander, Naval Air Systems Command (COMNAVAIR) shall:

(1) Execute the role of lead SYSCOM for the Navy Technical Manual Program.

NAVAIRINST 4160 .2

26 Jul 88

- (4) Fleet Commanders in Chief.
- (5) Chief of Naval Education and Training.
- (6) Naval Publications and Forms Center.
- (7) Navy Publishing and Printing Service Management Office.

Encl (1)

NAVY TECHNICAL MANUAL TECHNICAL COUNCIL CHARTER

1. Purpose. The Navy Technical Manual Technical Council (NTMTC) will provide technical guidance and recommendations to the Chief of Naval Operations (CNO), Secretary of the Navy (SECNAV) and the Navy Technical Manual Management Policy Council (NTMMPC), regarding technical manual matters.

2. Responsibility. The NTMTC will:

a. Meet every 4 months as required.

b. Establish working groups as necessary to resolve issues and assigned tasks.

c. Develop and advise on how to achieve standardization and modernization in technical manual acquisition, maintenance, printing, distribution, stocking, and disposal.

d. Improve communications and coordination among various commands, acquisition managers, producers, and users.

e. Develop concepts and provide advice on how improvements can be measured in the fleet and training community regarding the quality of technical manuals, including the ability of Navy personnel to use manuals to operate and maintain weapon systems and equipment.

f. Develop and recommend changes to the Federal Acquisition Regulations (FAR) and the DoD FAR supplement when required.

g. Develop and recommend new procedures and policies required to transition emerging technology, such as digitized data and automation techniques, into the Navy Technical Manual Program for more efficient and economical benefits.

h. Implement the direction and guidance provided by the NTMMPC.

i. Ensure proven techniques and technology results are transferred throughout the Department of the Navy.

j. Identify and initiate action items to address technical requirements and resolve technical issues.

k. Provide technical guidance and recommendations concerning issues of interest to the NTMMPC, CNO, and SECNAV.

l. Provide procedures and forums to keep industry informed of Navy technical manual positions, policy, and initiatives.

(2) Coordinate printing and other automation efforts with the lead SYSCOM for technical manual automation, to promote exchange of information and avoid duplicate efforts.



J. B. WILKINSON

Distribution: FKA1A (2 copies each unless otherwise indicated)
SNDL: 24A1; 24A2; 42RR; FKA1A (Deputy Commander, NAVAIR Acquisition Executive and Deputy Commander for Operations, Assistant Commanders, Comptroller, Command Special Assistants, Program Directors, Designated Program Managers, Directorate Directors, and Office and Division Directors, AIR-4111B [5 copies], AIR-41111G [5 copies]); C83C; FF18; FKA1B (Code 003, PD30, PD40, PD50, PD60, PD70, PD80); FKA1C (Code 09M13); FKA1F (SUP-0323); FKA1G (CEL-TD); FKM19 (1 copy each); FKM22 (Codes 00, 100, 300); FKM27 (Codes 41, 51, 52, 53); FKP1G (Code 5H30); FKP1J (Code 3730G); FKP1M; FKQ2; FKQ3A; FKQ6A; FKQ6H; FKR1B; FKR3A; FKR3E; FKR3I (Code 42); FKR4A; FKR5; FKR7C (Code 012); FKR7E; FT; Commanding General (Code PSI-D/TM), Marine Corps Research, Development and Acquisition Command, Washington, DC 20380-0001; NPPSOs; NPPSBOs; NPPSDBOs; NPPSPAB/DPABs/DPARB

copy to: (2 copies each unless otherwise indicated);
SNDL: A3 (OP-116, OP-431); C84B (Morgantown [1 copy]); FKA1B (PMW-164-1); FKA1A (AIR-07D A/L (1 copy), AIR-71532 (10 copies), AIR-71541A (40 copies); FKM27 (NPPSO-NDW C/L)

Stocked: Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120-5099

NAVY TECHNICAL MANUAL MANAGEMENT POLICY COUNCIL CHARTER

1. Purpose. The Navy Technical Manual Management Policy Council (NTMMPC) will advise, assist and provide guidance and recommendations to the Chief of Naval Operations (CNO) and the Secretary of the Navy (SECNAV), on technical manual matters. Issues may include formulating and implementing technical manual policies throughout the Department of the Navy. They may also include the Navy's responsibilities in relation to other services, Department of Defense (DoD), congressional agencies and private industry. In addition, recommendations concerning the leadership role within DoD for Research and Development of technical manual information systems and other policy matters may be required.
2. Responsibility. The NTMMPC will:
 - a. Meet semiannually or more often if required.
 - b. Review the Navy Technical Manual Program requirements for initiatives to improve the Navy Technical Manual Program.
 - c. Review and appraise existing policies, with particular attention to the impact of these policies on Navy component resources.
 - d. Recommend new policies and initiatives to improve and standardize the Navy Technical Manual Program or the Navy technical manual information process.
 - e. Analyze issues concerning technical information within the scope of SECNAV Instruction 5219.2A.
 - f. Provide direction and guidance to the Navy Technical Manual Technical Council.
3. Council Members. The NTMMPC members will:
 - a. Be chaired by CNO (OP-04) or designated representative.
 - b. Be comprised of Flag and Senior Executive Service and other representatives from:
 - (1) Assistant Secretary of the Navy (Shipbuilding and Logistics) and Assistant Secretary of the Navy (Research, Engineering and Systems).
 - (2) Office of the Chief of Naval Operations technical manual sponsors.
 - (3) System Commands.

26 Jul 88

d. Planning. A technical manual plan shall be prepared for each new ship, system, equipment acquisition and major modification. The plan shall be included in, or referenced by, the Integrated Logistics Support Plan (ILSP), and maintained in a current status throughout the acquisition cycle.

e. Numbering. Navy Technical Manual Identification Numbering System (TMINS) numbers shall be assigned to all new or revised technical manuals.

f. Milestones. Acquisition, delivery, and approval of logistics support analysis (LSA's), support equipment recommendation data sheets (SERDS's), provisioning documentation and maintenance plans, shall be programmed to assure availability of source data and approved support equipment for technical manual development. Milestones for technical manuals shall consider the hardware delivery schedule, training and operational requirements. Milestones for technical manual validation and verification, when dedicated hardware will be required, should be determined as early as possible to ensure the most influence on the hardware delivery schedule.

g. Funding. Acquisition, printing and distribution of technical manuals shall be funded by the appropriation that funds the acquisition of the weapon system, equipment, or modification.

h. Acquisition

(1) Contracting. Technical manuals shall be acquired by a separate, priced contract line item or subline item established per subpart 4.7103-1 of reference (d), or acquired on a separate requirements contract. All contracts used for acquiring technical manuals shall include a clause for the withholding of payment for deficient or late technical manuals. Each contract line item or subline item shall reference an exhibit which identifies the technical manuals being ordered. The exhibit for technical manuals shall be the Contract Data Requirements List (CDRL) together with the Technical Manual Contract Requirement (TMCR). The TMCR shall fully describe delivery instructions and cite applicable specifications and standards that contain the content and format requirements for preparation of the technical manuals. All specifications and standards (including amendments, changes, and revisions) cited in the TMCR, shall have Office of Management and Budget (OMB) clearance and be listed in the Acquisition Management Systems and Data Requirements Control List (AMSDL), reference (e). Administrative and management data (such as status reports) shall be acquired by the CDRL, which must reference an approved Data Item Description (DID), and may reference the TMCR. Contracts for new technical manuals shall provide for electronically transmitted and stored technical manuals. Contract provisions will apply when the medium and format specifications and standards for data transcription (electronic data) have been authorized for use by DoD/DON.

(2) Commodity Specifications. Neither technical manuals nor their associated data may be acquired by including requirements for them in a physical commodity specification.

9722

3

3. Council Members. NTMTC members will:

a. Be chaired by the Commander, Naval Air Systems Command or designated representative.

b. Be comprised of representatives from:

- (1) CNO (OP-11 and OP-04)
- (2) The technical manual management office of each hardware systems command and their major technical manual management field activity.
- (3) Naval Supply Systems Command.
- (4) Marine Corps Research, Development and Acquisition Command.
- (5) Chief of Naval Education and Training.
- (6) Naval Publications and Forms Center.
- (7) Navy Publishing and Printing Service Management Office.
- (8) Fleet Type Commanders.
- (9) Other concerned Navy activities, as appropriate.

Encl (2)